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# Empowering Nurses Through Evidence-Based Practice (EBP), Quality Improvement (QI), and Research

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# **Empowering Nurses Through Evidence-Based Practice (EBP), Quality Improvement (QI), and Research**

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# Announcements and Disclosures

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**In order to prevent bias, we  
acknowledge:**

We have no commercial  
support!

Free from any conflicts  
of interest that could  
influence content.



# Objectives

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- ❖ As a result of this presentation, participants will be able to:
  - ❖ Discuss differences between evidence-based practice, quality improvement, and research.
  - ❖ Explain the challenges and rewards of conducting evidence-based practice, quality improvement, and research projects

# Empowered

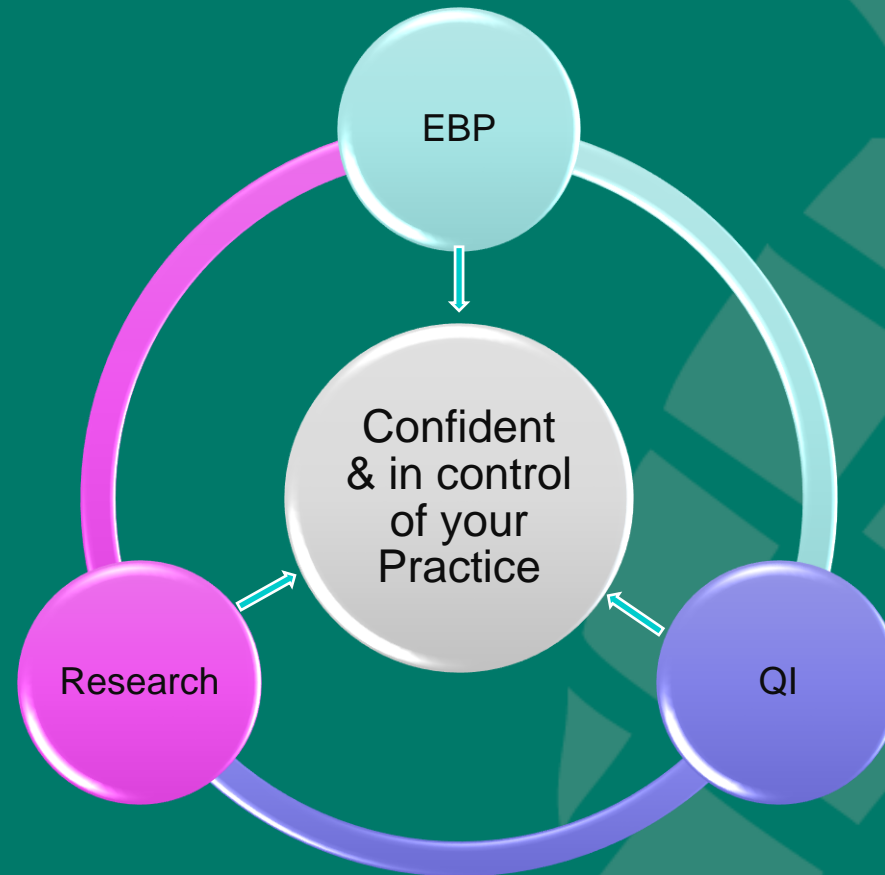
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- ❖ *Cambridge Dictionary* (2016) defines empowerment as something that makes you more confident and makes you feel that you are in control of your life



# Three Ways to become Empowered in Your Practice

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Institute Of Medicine (IOM) has set a goal that by 2020, 90 percent of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence. (IOM, 2008)



# What is the Goal of EBP, QI, and Research?

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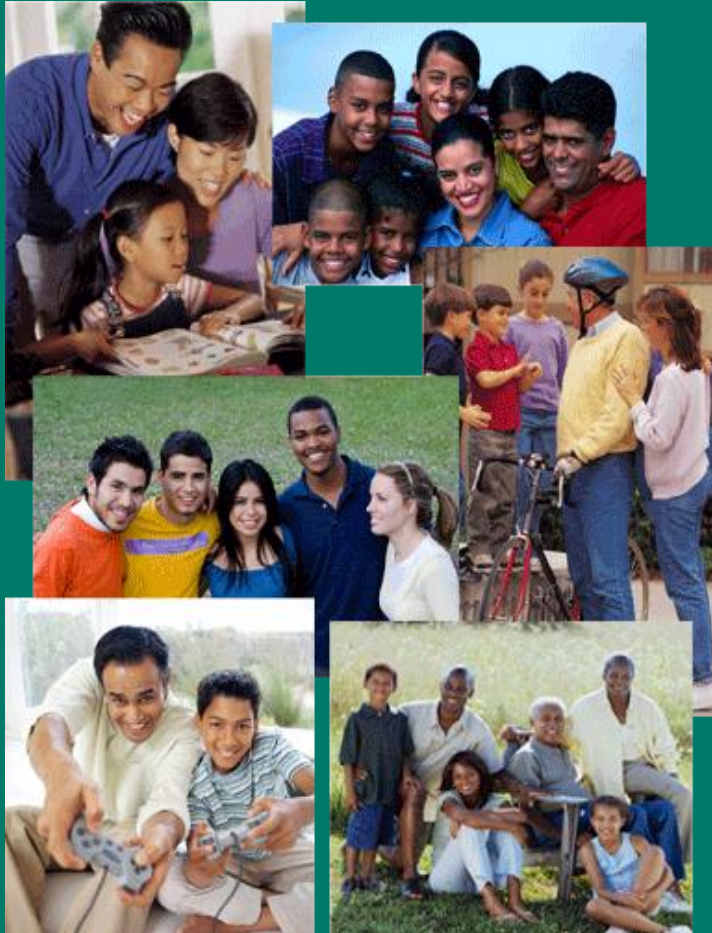
To provide care to patients that is based on scientific evidence and meets the patient's needs...



To improve clinical outcomes.



# Evidence-Based Practice



# Evidenced-Based Practice

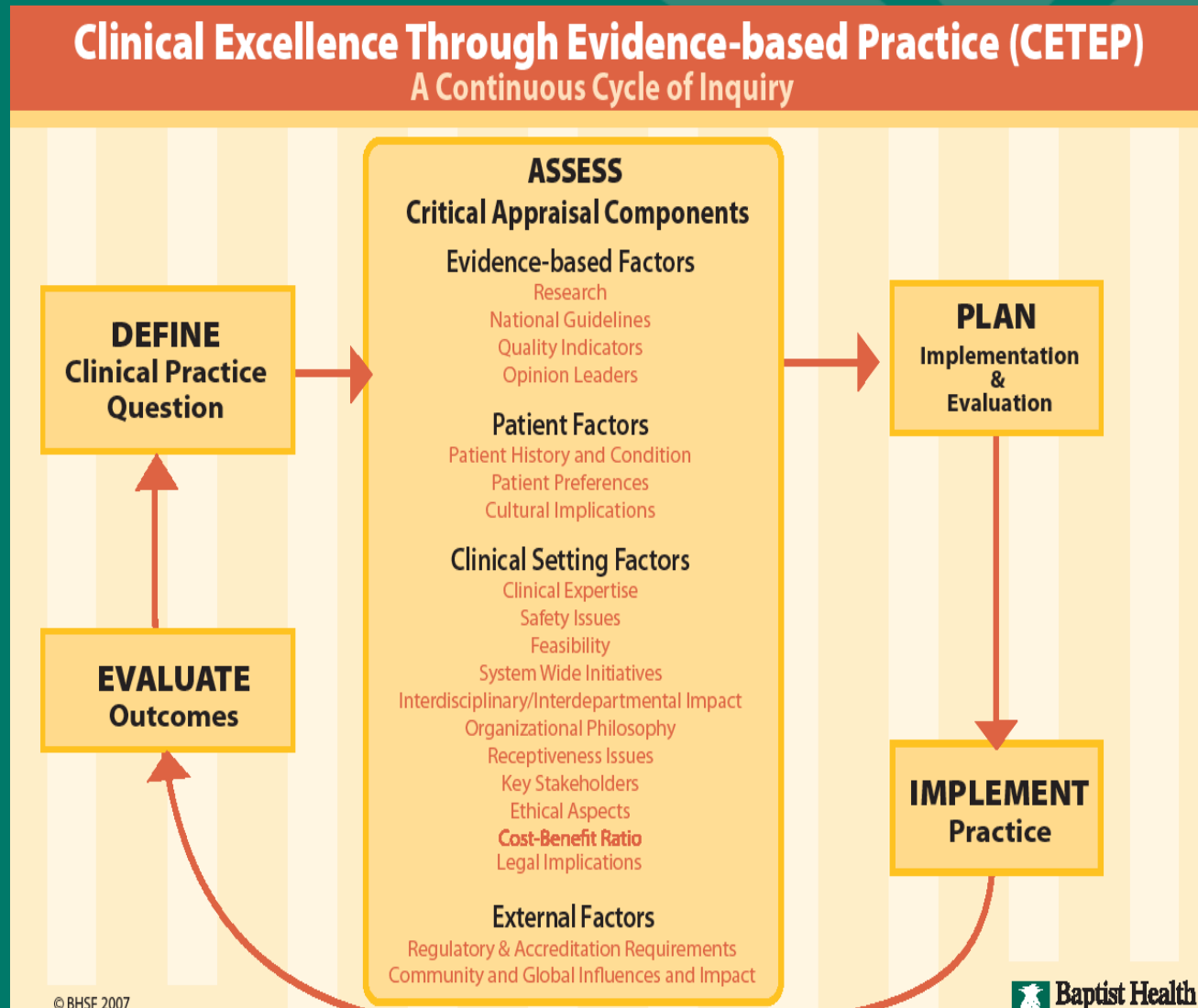
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## ❖ Definition

- Evidence-based practice is "a total process beginning with knowing what clinical questions to ask, how to find the best practice, and how to critically appraise the evidence for validity and applicability to the particular care situation. The best evidence then must be applied by a clinician with expertise in considering the patient's unique values and needs. The final aspect of the process is evaluation of the effectiveness of care and the continual improvement of the process" ([DePalma, 2000](#)).

# EBP Models

John Hopkins  
Nursing EBP Model  
Iowa Model of EBP  
to Improve Quality  
Care  
Stetler Model of  
Research Utilization  
ACE Star Model of  
Knowledge  
Transformation  
Clinical Excellence  
Through Evidence-  
based Practice  
(CETEP)



# Quality Improvement

- ❖ “Systematic, data-guided activities designed to bring about immediate positive changes in the delivery of health care in particular settings.”
- ❖ Improving the quality of care of patients is a fundamental obligation of health care providers.
- ❖ The QI process involves evaluating and learning from experience.

Hastings Center (2006)

# Research

- ❖ A systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

45 CFR 46.102(d)





# Similarities: QI & Research

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- ❖ Involve human participants
- ❖ Concerned with inquiry
- ❖ Engage in a process where empirical or systematic inquiry generates a question that data is designed to answer
- ❖ Propose outcome measures that will support proposal
- ❖ Testing of solutions
- ❖ Critical Evaluation of the data

QI	Research
Improves performance or processes to strengthen patient care.	Answers a question or hypothesis to advance general knowledge
Findings used for internal improvement.	Findings contribute to generalized knowledge outside of the hospital
Implementation of established evidence-based standards.	Investigates untested methods or standards.
Implementation will result in direct benefit	Subjects may not directly benefit from knowledge gained
Follows the <i>plan, do, study, act</i> cycle	Follows a research design (e.g. randomization)
Usually involves all or most people participating in the process	Involves a subset of the population with inclusion and exclusion criteria

QI	Research
HIPAA covers the use of protected health information for QI purposes	Must get written consent from patients and identify how health information will be protected
May make changes during the process based upon preliminary data	No deviation from set protocol. Data is usually not analyzed until completion
The hospital agrees that it is a QI project. Project is not a risk or burden to patients	Approval from the hospital <i>and</i> the institutional review board (IRB) needed
The results are not initially intended to be published; may be published as a quality project.	Results are expected to be published and presented outside the hospital
Not funded by an external research grant.	External funding may be sought.

Merrill (2015)

# QI- Three Components of Health Care Quality

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- Structure
    - Resources
  - Process
    - How the system works/measures aspects of care
  - Outcome
    - The final product/outcome
- Donabedian (1980)

## Reducing pressure ulcer rates:

- Number of RNs working
- Frequency of pressure ulcer risk assessment
- % of patients who get a pressure ulcer



# QI Tool

- Determine what modifications should be made.
- Prepare a plan for the next test.

**Act**

**Study**

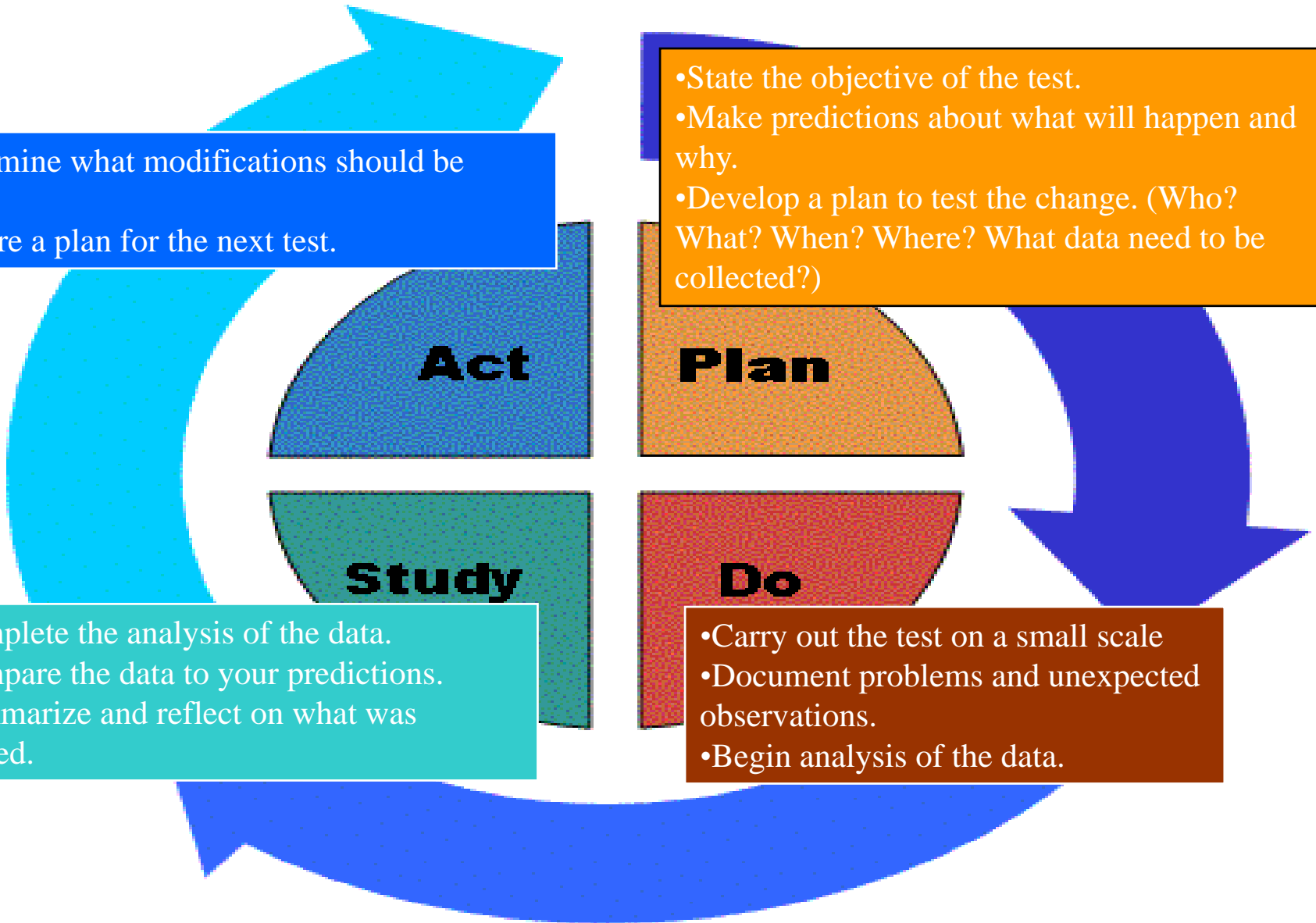
- Complete the analysis of the data.
- Compare the data to your predictions.
- Summarize and reflect on what was learned.

- State the objective of the test.
- Make predictions about what will happen and why.
- Develop a plan to test the change. (Who? What? When? Where? What data need to be collected?)

**Plan**

**Do**

- Carry out the test on a small scale
- Document problems and unexpected observations.
- Begin analysis of the data.



# Research Process

## Research Ideas

- “Burning clinical Question

## Systematic Review of Literature

- Start writing literature review

## Planning

- Who? What? When? Where? How?

## Research Tasks

- Study design, Budget, IRB Proposal, Consent, Type of data, Data collection forms, Letters, Inclusion/exclusion, Time line, Power analysis

## Research Activities

- Recruit subjects, Enroll subjects, Interventions, Follow up, Collect data, Enter data, Analyze data, Write Abstract, Write Manuscript

# Roadblocks to EBP, QI, and Research

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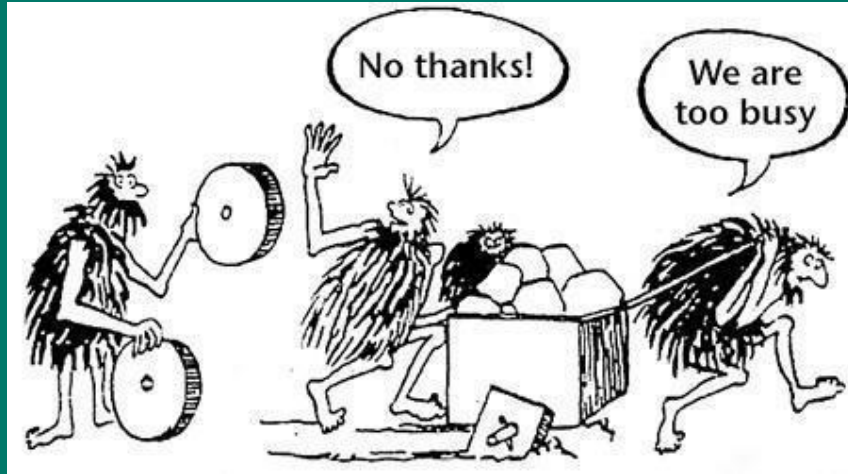
- ❖ Lack of time
- ❖ Lack of knowledge
- ❖ Lack of interest
- ❖ Human resources
- ❖ Limited organizational/peer support

Breimaier, Halfens, & Lohrmann 2011

Solomons & Spross, 2011

# Facilitators for EBP, PI, and Research

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- ❖ Access to Information
- ❖ Sufficient time
- ❖ Structural availability
- ❖ Human resources
- ❖ Team
  - ❖ Breimaier, Halfens, & Lohrmann 2011



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# How to get Started?

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## Ask a Question



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